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EXAMINER

NORTON, JENNIFER L

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,774

Applicant(s)

SCHREDER ET AL.

Examiner

Jennifer L. Norton

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a **Final Office Action** in response to the Amendment received on February 27, 2006. Claim 1 has been cancelled. Claims 2-14 are pending in this application.

Drawings

2. The amendment to the Specifications was received on February 27, 2006. The correction is acceptable and the objection to the Drawings is withdrawn.

3. The amendment to the Drawings, Figs. 1, 3 and 7 was received on February 27, 2006. The correction is acceptable and the objection to the Drawings is withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2-7 and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,881,115 (hereinafter Lipner).

6. As per claim 2, Lipner discloses determining whether said current output is an information type (col. 4, lines 12-13); and marking said current output as complete, if said current output is said information type (col. 4, lines 15-19).

7. As per claim 3, Lipner discloses after the executing step, storing a value of said automatic expression to a destination reference (col. 3, lines 49-51).

8. As per claim 4, Lipner discloses a control system that uses, sequential control modules, said control system comprising:

a user interface component (col. 3, lines 47-49, Fig. 1, element 33 and 35) that provides at least a table view (Fig. 3), said table view comprising a plurality of outputs of a selected step of at least one of said sequential control modules, wherein said outputs comprise a combination of at least one non-interactive instruction and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63);

an operator station (Fig. 1, element 19) that executes said user interface component (col. 3, lines 44-47) and that responds to at least one input operator for said interactive instruction (col. 2, lines 27-35, col. 3, lines 58-64, and col. 4, lines 19-22); and

at least one controller (Fig. 1, element 15 and col. 3, lines 18-21) that is operated by executing said interactive instruction at least partly in response to said

operator input and said non-interactive instruction automatically (col. 2, lines 27-35 and col. 4, lines 19-22 and 55-63).

9. As per claim 5, Lipner discloses a journaling component (Fig. 1, element 37) capable of being executing on said operator station for recording information related to the execution of said sequential control module (col. 3, lines 49-51).

10. As per claim 6, Lipner discloses said table view comprises:

a summary area that provides a name of said sequential control module and a list of steps in said sequential control module, wherein said selected step is selected from said list (col. 2, lines 10-13, col. 4, lines 53-55, col. 5, lines 3-5 and Fig. 3, element 49);

a details area that provides a step name and a step description for said selected step (Fig. 3, element 65); and

a parameters area that provides a current value of at least one parameter associated with said selected step (col. 5, lines 63-65 and Fig. 3, element 67).

11. As per claim 7, Lipner discloses an additional details area (Fig. 3, element 61) for information associated with said selected step (col. 5, lines 53-57).

12. As per claim 9, Lipner discloses said details area includes a confirmation component to receive a confirmation from said operator (col. 6, lines 15-16 and Fig. 3, element 59).

13. As per claim 10, Lipner discloses said user interface component also provides a sequential function chart view (col. 4, lines 2-4 and Fig. 2, element 41).

14. As per claim 11, Lipner discloses a computer readable medium having executable instructions stored thereon to perform a method in a control system that uses sequential control modules, said method comprising:

providing a type indication on a display for an instruction in a sequential control module, said type being confirmable or informational (col.4, lines 12-13); and

receiving a confirmation from an operator before completing said instruction, if said type is confirmable (col. 6, lines 15-16)

at least one of said executable instructions causing an interactive display screen (col. 4, lines 35-39 and Fig. 3) to be presented to an operator that displays a plurality of outputs (col. 4, lines 55-63 and col. 5, lines 62-65) of a selected step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19), wherein said outputs comprise a combination of both automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22);

at least one of said executable instructions causing a determination of whether a

current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

at least one of said executable instructions causing, if said current output is an interactive instruction, a determination of whether said interactive instruction has been confirmed by said operator 9col. 6, lines 15-22);

a marking said current output complete (col. 4, lines 24-25); and

at least one of said executable instructions causing, if said current output is an automatic expression, at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression 9col. 3, lines 13-17 and col. 4, lines 19-20).

15. As per claim 12, Lipner discloses the computer readable medium further comprising: at least one of said executable instructions causing at least one value of a parameter to be associated with at least one of said outputs on said display screen (col. 5, lines 63-65 and Fig. 3, element 67).

16. As per claim 13, Lipner discloses the computer readable medium further comprising: at least one of said executable instructions causing additional information about said current output to be displayed on said display screen (col. 5, lines 53-57 and Fig 3, element 61).

17. As per claim 14, Lipner discloses a method of providing interactive control in a control system that uses sequential control modules, said method comprising:

presenting an interactive display screen (col. 4, lines 35-39 and Fig. 3) to an operator that displays a plurality of outputs (col. 4, lines 55-63 and col. 5, lines 62-65) of a selected step of at least one of said sequential control modules (col. 3, lines 28-29 and 49-51 and Fig. 1, element 19), wherein said outputs comprise a combination of at least one automatic expression and at least one interactive instruction (col. 2, lines 27-35 and col. 4, lines 19-22);

determining whether a current one of said outputs is an interactive instruction or an automatic expression (col. 2, lines 27-35 and col. 4, lines 19-22, i.e. when a state is violated, it is determined that an interactive instruction will occur);

if said current output is an interactive instruction, determining whether said interactive instruction has been confirmed by said operator (col. 6, lines 15-22);

if said interactive instruction has been confirmed by said operator, marking said current output complete (col. 4, lines 24-25); and

if said current output is an automatic expression, using at least one controller (Fig. 1, element 5) in said control system to execute said automatic expression (col. 3, lines 13-17 and col. 4, lines 19-20).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipner in view of U.S. Patent No: 6,775,576 (referred to as Spriggs hereinafter).

20. As per claim 8, Lipner does not expressly teach a trend area that provides a graph of said at least one parameter associated with said selected step.

Spriggs teaches to a trend area that provides a graph of said at least one parameter associated with said selected step (col. 19, lines 27-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Lipner to include a trend area to reduce capital cost and the traditional requirement for both expertise and human resources necessary to integrate and maintain prior systems is reduced (col. 2, lines 7-9).

Response to Arguments

21. Applicant's arguments, see pgs. 10-11, filed on February 27, 2006 with respect to the rejection(s) of claim(s) 2-7 and 9-13 under 35 U.S.C. 102(b) have been fully considered but they are not persuasive.

22. Applicant argues that the prior art fails to teach "a display of a screen that contains a combination of at least one automatic expression and at least one interactive instruction of a plurality of outputs of a selected step of a sequential control module".

23. The examiner respectfully disagrees. The Lipner reference discloses (see col. 2, lines 27-35) "Such control signals can be automatically generated by a procedure which is running automatically. Some procedures call for verification that the control signal has been effective before advancing to the next step. In some instances, this may take some time. If the condition is not satisfied, the step is violated and the automatic sequencing will terminate requiring operator intervention." (see col. 4, lines 19-22) "In the "automatic" mode, the SSCI will advance to the next step if the pertinent conditions are verified. If the conditions are violated, however, the procedure will transfer to a "violated" mode which requires operator action." (see col. 4, lines 64-67 and col. 5, lines 1-2 and Fig. 3) "Procedure Interface 47 screens of multiple procedures may be displayed simultaneously, such as where several procedures are being executed at the same time. The multiple procedures may each be displayed in a smaller window, or any one or more may be iconized, to be displayed at the operator's request."

24. Applicant argues that the prior art fails to teach "determination of whether an output of a step is an automatic expression or an interactive instruction."

25. The examiner respectfully disagrees. The Lipner reference discloses (see col. 2, lines 27-35) "Such control signals can be automatically generated by a procedure which is running automatically. Some procedures call for verification that the control signal has been effective before advancing to the next step. In some instances, this may take some time. If the condition is not satisfied, the step is violated and the automatic sequencing will terminate requiring operator intervention." (see col. 4, lines 19-22) "In the "automatic" mode, the SSCI will advance to the next step if the pertinent conditions are verified. If the conditions are violated, however, the procedure will transfer to a "violated" mode which requires operator action." Hence when a state is violated, it is determined that an interactive instruction will occur.

26. Applicant argues that the prior art fails to teach "a table view that comprises a combination of at least one non-interactive instruction and at least one interactive instruction."

27. The examiner respectfully disagrees. The Lipner reference discloses (see col. 2, lines 27-35) "Such control signals can be automatically generated by a procedure which is running automatically. Some procedures call for verification that the control signal

has been effective before advancing to the next step. In some instances, this may take some time. If the condition is not satisfied, the step is violated and the automatic sequencing will terminate requiring operator intervention." (see col. 4, lines 19-22) "In the "automatic" mode, the SSCI will advance to the next step if the pertinent conditions are verified. If the conditions are violated, however, the procedure will transfer to a "violated" mode which requires operator action." (see col. 4, lines 64-67 and col. 5, lines 1-2 and Fig. 3) "Procedure Interface 47 screens of multiple procedures may be displayed simultaneously, such as where several procedures are being executed at the same time. The multiple procedures may each be displayed in a smaller window, or any one or more may be iconized, to be displayed at the operator's request."

28. Applicant argues that the prior art fails to teach "one controller that is operated by executing the interactive instruction at least partly in response to an operator input and the interactive instruction automatically".

29. The examiner respectfully disagrees. The Lipner reference discloses (see col. 3, lines 18-26 and Fig. 1, element 15) "a Supervisory Sequential Controller Interface ("SSCI") system 15 which is an on-line work station-based system designed for plant operating procedure and sequential control applications. As used throughout, procedures and sequential control steps are considered interchangeable terms. The system is designed to provide an interface which allows for both user-paced (manual) and system-paced (automatic) procedure and sequence monitoring. (see col. 2, lines

27-35) "Such control signals can be automatically generated by a procedure which is running automatically. Some procedures call for verification that the control signal has been effective before advancing to the next step. In some instances, this may take some time. If the condition is not satisfied, the step is violated and the automatic sequencing will terminate requiring operator intervention." (see col. 4, lines 19-22) "In the "automatic" mode, the SSCI will advance to the next step if the pertinent conditions are verified. If the conditions are violated, however, the procedure will transfer to a "violated" mode which requires operator action."

30. Applicant's arguments, see pg. 11, filed on February 27, 2006 with respect to the rejection(s) of claim(s) 8 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

31. Claim 8 stands rejected under 35 U.S.C. 103(a) as set forth above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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